



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/640,553

08/13/2003

Randal Alan Stevens

7173/118

8361

38356

7590

10/02/2008

BROOKS, CAMERON & HUEBSCH, PLLC  
1221 NICOLLET AVENUE, SUITE 500  
MINNEAPOLIS, MN 55403

EXAMINER

VARGOT, MATHIEU D

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

10/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/640,553	<b>Applicant(s)</b> STEVENS, RANDAL ALAN	
	<b>Examiner</b> Mathieu D. Vargot	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Upon closer review of the case, new art has been found which necessitates the reopening of prosecution. Also, the restriction requirement has been vacated and an action on claims 1-26 hereby follows.

2. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in calling for a "Method comprising..." when it is not clear exactly what method is being specified. Claim 1 should be amended as—Method for creating a negative hearing aid mold comprising--. Claims 2-4, 6, 8-14, 17, 19, 20 and 22-25, line 1, a comma should be inserted before "with" and —the—inserted after "with". Claims 9-14 and 22, the recitation of "such as" renders these claims indefinite as it is not clear whether the preferred language is actually a claim limitation. Preferred embodiments should be set forth in separate, dependent claims. In claim 19, if a tradename is being used to describe the epoxy resin, it should be replaced with generic language. Also, it is believed that claims 1 and 26 should properly recite the limitation of creating the mold "from the outside mold data", a limitation that was deleted from these claims, for clarity. As it stands, it is unclear why the outside mold data is being generated.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 6-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellafiore (see Figs. 1-5) in view of Widmer et al (see col. 14, line 53 through col. 15, line 29; column 4 concerning the rapid prototyping methods; col. 6, lines 20-32 for additional disclosure concerning the digitizing of the data).

Bellafiore discloses a process of making a negative hearing aid mold (18) suitable for the receipt of a soft solid (82 in Fig. 5, to make a hearing aid) by using outside auditory canal dimensions -- by taking an impression of an auditory canal (14)—and using these dimensions to create a negative hearing aid mold by casting a mold material (16) around the impression (14)—see Figs. 2-4. Essentially, the primary reference lacks a showing of “processing... measurement data representing the dimensions of the auditory canal to generate outside auditory canal dimension data”, “processing” this data to generate “outside mold data” and creating the negative hearing aid mold (from the outside mold data) using rapid prototyping. In other words, in Bellafiore, the outside dimensions of the auditory canal are used to fashion the inside surface of the hearing aid mold as set forth in the instant claims, the difference being that the dimensions are not “processed” but rather directly used to make the mold. However, as already noted, Widmer et al teaches making hearing aid shells directly from digital data obtained— ie, processed-- from an impression of the auditory canal. Hence, one of ordinary skill in the art would realize that it is known to process the instant data to make a structure (the shell) that is directly analogous to the instant negative hearing aid mold. Clearly, it would have been obvious to one of ordinary skill in the art to modify the conventional mold making of the primary reference by

Art Unit: 1791

“processing” data (ie, measurements or dimensions) in a computer based scheme as disclosed by Widmer et al to form a mold that would be more accurate than that resulting from the static impression of Bellafore. See the passage bridging columns 14 and 15 in Widmer et al. Widmer et al also discloses rapid prototyping to make the shell and such would clearly have been used to make the mold of Bellafore. As one can easily see, the two structures would have—or should have—exactly the same dimensions and hence would be congruent structures. The teachings of the various methods of rapid prototyping as taught at column 4 of Widmer et al would render the instant methods obvious thereover and the instant materials are well known in the art as materials suitable for these methods. While Bellafore makes a free-standing mold, it certainly would have been obvious to have mounted a mold made from processed data on a faceplate or base as set forth in instant claim 15 for stability. Bellafore teaches adding the necessary electronics to the hearing aid mold into which has been cast a soft solid to make the shell.

4. Claims 3-5 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellafore (see Figs. 1-5) in view of Widmer et al (see col. 14, line 53 through col. 15, line 29; column 4 concerning the rapid prototyping methods; col. 6, lines 20-32 for additional disclosure concerning the digitizing of the data) and Jordan et al (see col. 9, lines 25-42).

Bellafore and Widmer et al are applied for reasons of record as set forth in paragraph 3, supra, the references failing to teach using a laser to generate the digital data. Jordan et al clearly teaches that laser scanning would be used to generate digital

Art Unit: 1791

data, either using an impression of the area to be digitized or using the area itself.

Based on the teaching of Jordan et al, it would have been obvious to employ a laser to generate the digitized data in the combination of Bellafiore and Widmer et al as such is conventional and would produce a very accurate representation of the are to be modeled.

5.Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Upon reconsideration and updating the search, a new reference to Bellafiore has been found and applied. It is believed that the combination of Bellafiore, which teaches the formation of a negative hearing aid mold from an impression of the auditory canal, and Widmer et al, which employs digitized data to make a hearing aid shell through rapid prototyping of the data, renders instant claims 1, 2 and 6-25 as obvious. Instant claims 3-5 and 26, which require a laser to obtain the data, are obvious in the combination of Bellafiore taken with Widmer et al and Jordan et al.

6.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on 571 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot  
September 26, 2008

/Mathieu D. Vargot/  
Primary Examiner, Art Unit 1791

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791